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State of Illinois
Rod R. Blagojevich, Governor



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Guide To Career Choices

Manufacturing

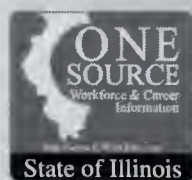
A brief look at:

- jobs
- education and training requirements
- wages
- outlook

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ENTRY : the mean (average) of the bottom third of wages in an occupation

MEDIAN : half of the workers in the occupation earn more than this wage; half earn less

EXPERIENCED : the mean of the top two-thirds of wages in an occupation

HS : High School diploma or equivalent

AD : Associate Degree of Arts/Science
community college, 2 years

BA/BS : Bachelor of Arts/Science degree
colleges/universities, 4 years

OUTLOOK

ANNUAL WAGES

Career Opportunities	2014 Employment	Annual Openings	Entry	Median	Experienced	Education & Training
General Maintenance and Repair Workers	57,919	1,427	\$23,291	\$36,858	\$45,585	Typically a high school diploma is needed for entry into this occupation.
First-Line Supervisors of Production and Operating Workers	33,597	706	\$33,402	\$49,972	\$61,908	HS is the minimum educational requirement. In some industries supervisors must have additional training. Employers look for applicants who have experience and job knowledge.
Industrial Truck and Tractor Operators	30,679	746	\$21,267	\$28,937	\$36,159	HS and mechanical aptitude/training are assets. Training is provided on the job.
First-Line Supervisors of Mechanics, Installers, and Repairers	20,794	643	\$39,180	\$58,524	\$71,191	HS is the minimum educational requirement. In some industries supervisors must have additional training. Employers look for applicants who have experience and job knowledge.
Welders, Cutters, Solderers, and Brazers	14,545	421	\$23,774	\$32,431	\$39,129	Highly skilled jobs require several years of combined school and on-the-job-training. Certified welders who meet specified welding standards have the best job prospects and mobility.
Electrical and Electronic Equipment Assemblers	8,944	243	\$17,827	\$23,575	\$28,696	AD from community/junior college or technical institute is preferred. Short-term on-the-job training is provided by most employers.
Industrial Machinery Mechanics	7,664	157	\$28,315	\$41,160	\$48,978	Many receive their training through apprenticeships. Some mechanics learn their skills on the job. High school courses in machine shop, math, physics, and drafting provide a good background.
Machinists	22,611	567	\$22,395	\$33,368	\$40,601	HS/GED may be required for jobs such as Machine Operators and Tenders. Courses in shop, mathematics, blueprint reading, and knowledge of the properties of metals and plastics provide an excellent background. Skills are learned on the job by observing and assisting experienced workers, often as part of a formal training program. Several years may be needed to become a skilled operator or advance to the position of Set-Up Operator. Operators of numerical control (NC) machine tools are trained to set-up and run one or more kinds of NC machine tools and may also attend programming courses.
Cutting, Punching, & Press Machine Setters, Operators and Tenders, Metal & Plastic	12,412	365	\$17,952	\$25,754	\$32,116	
Molding, Coremaking, & Casting Machine Setters, Operators & Tenders, Metal & Plastic	10,429	272	\$17,340	\$24,195	\$31,343	
Computer-Controlled Machine Tool Operators	9,039	291	\$22,188	\$32,995	\$39,628	

Occupational growth rates and job opening data are based on All-Industry projections through the year 2014.

Wage data cover full-time, part-time and seasonal employees but exclude temporary and contractual workers. Wages include commissions and cost-of-living allowances, but exclude overtime and tips.

Job Descriptions

Computer-Controlled Machine Tool Operators

Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.

First-Line Supervisors of Mechanics, Installers, & Repairers

Supervise and coordinate the activities of mechanics, installers, and repairers.

Industrial Machinery Mechanics

Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems.

First-Line Supervisors of Production & Operating Workers

Supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators.

Electrical and Electronic Equipment Assemblers

Assemble or modify electrical or electronic equipment, such as computers, test equipment, telemetering systems, electric motors, and batteries.

Cutting, Punching, & Press Machine Setters, Operators and Tenders, Metal & Plastic

Set up, operate, or tend machines to saw, cut, shear, slit, punch, notch, bend, or straighten metal or plastic material.

Machinists

Set up and operate a variety of machine tools to produce precision parts and instruments. Includes fabrication, modification, or repair of mechanical instruments.

Molding, Coremaking, & Casting Machine Setters, Operators and Tenders, Metal & Plastic

Set up, operate, or tend metal or plastic molding, casting, or coremaking machines to mold or cast metal or thermoplastic parts or products.

Welders, Cutters, Solderers, and Brazers

Use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Industrial Truck and Tractor Operators

Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location.

General Maintenance and Repair Workers

Perform work involving the skills of two or more maintenance or craft occupations to keep machines or the structure of an establishment in repair.

What is the job outlook?

Total employment in the manufacturing industry is expected to decline through 2014. Manufacturing layoffs in aging industries will be partially offset by job gains in those industries in which Illinois has a competitive advantage. Many job openings in the production occupations will be due to replacement of retiring workers. Implementation of labor saving machinery such as computer-controlled machine tools and robots has reduced employment levels during the past several decades. Employment opportunities will be favorable for machinists and welders. A significant number of job openings are also expected for cutting, punching, and press machine operators and molding/casting machine operators.

Where can I find more information?

The Illinois Department of Employment Security offers a wealth of information concerning the Illinois labor market. Visit **www.ILWorkInfo.com** to find out more about:

Career Planning: **Illinois Career Resource Network**
1-877-513-1987
des.icrn@illinois.gov

Labor Market Information: **LMI Source**
1-866-ONE-SRCE (1-866-663-7723)
des.lmi@illinois.gov

Workforce Information: **Workforce Info Center**
des.workinfo@illinois.gov

For assistance with employment and training issues, contact your local Illinois Employment and Training Center. Call 1-888-367-4382 to find the location nearest you.



www.ides.state.il.us

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Sources:
Illinois Department of Employment Security's "Occupational Projections" and "Occupational Employment Statistics Wage Data" and the U.S. Bureau of Labor Statistics' "Occupational Outlook Handbook."

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